

**REMARKS**

Claims 1-12 are pending in this application, claims 2-4 and 6-8 having been withdrawn from consideration. By this Amendment, claims 1 and 5 are amended. Support for these amendments can be found in claims 1 and 5 as originally filed, as well as in the specification as originally filed, for example, in Figure 14. In addition, new claims 9-12 have been added by this Amendment. Support for new claims 9-12 can be found in the specification as originally filed, for example, at page 23, lines 4-9, Figure 14, and in original claims 1 and 5. Thus, no new matter is added by these amendments.

The courtesies extended to Applicants' representative by Examiner Uhler at the interview held February 4, 2004, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute Applicants' record of the interview.

**I. Rejection Under 35 U.S.C. §112**

The Office Action rejects claims 1 and 5 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Although Applicants do not necessarily agree with this rejection, claims 1 and 5 have been amended herein to set forth, in pertinent part, "the cobalt-nickel-iron alloy thin film containing 60 to 75 weight % cobalt, 10 to 20 weight % nickel, and 10 to 20 weight % iron," as set forth in original claims 1 and 5. No new matter is added by these amendments. Applicants respectfully submit that this rejection has been overcome, and respectfully request withdrawal of this rejection.

**II. Rejection Under 35 U.S.C. §102(e)**

The Office Action rejects claims 1 and 5 under 35 U.S.C. §102(e) over U.S. Patent 6,120,918 to Osaka et al. Applicants respectfully traverse this rejection.

Claims 1 and 5 set forth, in pertinent part, a cobalt-nickel-iron alloy thin film containing "60 to 75 weight % cobalt, 10 to 20 weight % nickel, and 10 to 20 weight % iron

and having a crystal structure that is a mixture of a body-centered cubic structure phase and a face-centered cubic structure phase, wherein  $I_b/I_f$  is in the range of 0.375 to 0.7 inclusive where  $I_b$  represents the intensity of an X-ray diffracted from a (110)-plane of the body-centered cubic structure and  $I_f$  represents the intensity of an X-ray diffracted from a (111)-plane of the face-centered cubic structure."

In order to anticipate a claimed invention, the reference must disclose, in specific embodiments, all of the limitations of the claimed invention. That is, a prior art reference anticipates the claimed invention only where all claimed elements or steps of the claimed invention are disclosed, either expressly or inherently, in the reference. Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); In re Marshall, 577 F.2d 301, 198 USPQ 344 (CCPA 1978). Osaka does not disclose, in specific embodiments, cobalt-nickel-iron alloy thin films having the composition, structure and properties of the cobalt-nickel-iron thin films of claims 1 and 5, and thus cannot anticipate claims 1 and 5.

The specification teaches that the  $I_b/I_f$  value of a cobalt-nickel-iron alloy thin film can be changed by controlling the pH of the plating bath. See Specification, page 31, line 22 through page 32, line 4. As Figure 14 illustrates,  $I_b/I_f$  values can differ for cobalt-nickel-iron alloy thin films having the same proportionate constitution. See also Specification, page 31, lines 7-11. Figure 14 shows the relationship between the pH of the plating bath in film formation and the  $I_b/I_f$  value observed in samples having substantially the same composition. The specification teaches forming a cobalt-nickel-iron alloy thin film by electroplating and adjusting the pH of the plating bath to be in the range from 3.0 to 4.0, inclusive. See Specification, page 23, lines 4-7 and page 31, line 21 through page 32, line 4. Figure 14 indicates that when the plating bath is maintained at a pH of at least 3.0, the  $I_b/I_f$  is at least about 0.375.

The Office Action takes the position that the thin film of at least one of the Osaka examples "will necessarily meet the applicants claimed Ib/If ratio." Applicants respectfully disagree. Osaka discloses examples in which the plating bath is maintained at a pH of 2.8 or 2.5. As indicated by Figure 14 of the instant specification, cobalt-nickel-iron alloy thin films formed in such a bath would not be expected to have Ib/If values in the range of 0.375 to 0.7, as required by claims 1 and 5.

Thus, Osaka does not anticipate claims 1 and 5 because Osaka does not disclose all of the limitations of claims 1 and 5. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

### **III. New Claims**

Applicants respectfully submit that new claims 9-12 are also patentable over Osaka for at least the same reasons as discussed above with respect to claims 1 and 5.

In addition, new claims 9-12 specifically set forth the requirement that the cobalt-nickel-iron alloy thin films described therein be formed by electroplating with "a plating bath having a pH in the range of 3.0 to 4.0 inclusive." Osaka discloses forming cobalt-nickel-iron alloy thin films in plating baths having a pH of 2.8 or 2.5.

Thus, claims 9-12 are patentable over Osaka, at least because Osaka does not disclose all of the limitations of claims 9-12. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

### **IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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